09428647

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FILE 'HOME' ENTERED AT 14:04:16 ON 04 SEP 2001

=> file medline biosis embase caplus uspatfull

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'MEDLINE' ENTERED AT 14:04:27 ON 04 SEP 2001

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FILE 'USPATFULL' ENTERED AT 14:04:27 ON 04 SEP 2001
CA INDEXING COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

=> s androgen (p) receptor (p) slim3

L1 1 ANDROGEN (P) RECEPTOR (P) SLIM3

=> d l1 ibib kwic

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:833264 CAPLUS
DOCUMENT NUMBER: 134:13738
TITLE: Use of SLIM3 for ligand screening
INVENTOR(S): Schule, Roland; Muller, Judith
PATENT ASSIGNEE(S): Schering A. G., Germany
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000327587	A2	20001128	JP 1999-261593	19990916
EP 1058117	A1	20001206	EP 1999-250161	19990521
EP 1058117	B1	20010620		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 202420	E	20010715	AT 1999-250161	19990521

PRIORITY APPLN. INFO.: EP 1999-250161 A 19990521

AB Disclosed is the use of **SLIM3** and its interaction with nucleus **receptor** protein, such as **androgen receptor** or

.estrogen **receptor** .beta. subunit, for identification of ligands, antagonists and agonists.

ST **SLIM3** protein **androgen** estrogen **receptor** ligand

IT Proteins, specific or class
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**SLIM3**; protein **SLIM3** for screening ligands or agonists and antagonists of nucleus **receptor** such as **androgen receptor** or estrogen **receptor**)

IT Drug screening
Northern blot hybridization
(protein **SLIM3** for screening ligands or agonists and antagonists of nucleus **receptor** such as **androgen receptor** or estrogen **receptor**)

IT Ligands
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(protein **SLIM3** for screening ligands or agonists and antagonists of nucleus **receptor** such as **androgen receptor** or estrogen **receptor**)

IT **Androgen receptors**
Estrogen **receptors**
Nuclear **receptors**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(protein **SLIM3** for screening ligands or agonists and antagonists of nucleus **receptor** such as **androgen receptor** or estrogen **receptor**)

IT cDNA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(protein **SLIM3** for screening ligands or agonists and antagonists of nucleus **receptor** such as **androgen receptor** or estrogen **receptor**)

```
=> s slim3

L2          12 SLIM3

=> dup rem l2

PROCESSING COMPLETED FOR L2
L3             6 DUP REM L2 (6 DUPLICATES REMOVED)

=> d l3 total ibib kwic


L3   ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2001 ACS
ACCESSION NUMBER:         2000:772846  CAPLUS
DOCUMENT NUMBER:          133:331185
TITLE:                    Protein-protein interactions and their use in drug
                          screening and disease diagnosis
INVENTOR(S):              Heichman, Karen; Bartel, Paul L.
PATENT ASSIGNEE(S):       Myriad Genetics, Inc., USA
SOURCE:                   PCT Int. Appl., 87 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
```

WO 2000065340 A1 20001102 WO 2000-US10651 20000421
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 1999-130389 P 19990422
US 1999-140693 P 19990624
US 1999-156947 P 19990930
US 1999-163073 P 19991102
US 1999-168376 P 19991202
US 1999-168378 P 19991202

REFERENCE COUNT: 5
REFERENCE(S):
(1) Ausubel; Short Protocols in Molecular Biology, 3rd ed, chapter 13 1995, P53
(2) Gunster; Molecular Cell Biol 1997, V17(4), P2326 CAPLUS
(3) Naya; Tissue-specific regulation of the insulin gene by a novel basic helix-loop-helix transcription factor 1995, V9, P1009 CAPLUS
(4) Romanowski; Proc Natl Acad Sci 1996, V93, P10189 CAPLUS
(5) Zilberman; Circ Res 1998, V82(5), P566 CAPLUS

IT Proteins, specific or class
RL: ANT (Analyte); ARG (Analytical reagent use); BPR (Biological process); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(DRAL/FHL-2/**SLIM3**, complexes; protein-protein interactions and their use in drug screening and disease diagnosis)

L3 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:833264 CAPLUS
DOCUMENT NUMBER: 134:13738
TITLE: Use of **SLIM3** for ligand screening
INVENTOR(S): Schule, Roland; Muller, Judith
PATENT ASSIGNEE(S): Schering A. G., Germany
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000327587	A2	20001128	JP 1999-261593	19990916
EP 1058117	A1	20001206	EP 1999-250161	19990521
EP 1058117	B1	20010620		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 202420	E	20010715	AT 1999-250161	19990521

PRIORITY APPLN. INFO.: EP 1999-250161 A 19990521
TI Use of **SLIM3** for ligand screening
AB Disclosed is the use of **SLIM3** and its interaction with nucleus receptor protein, such as androgen receptor or estrogen receptor .beta. subunit, for identification of ligands, antagonists and agonists.
ST **SLIM3** protein androgen estrogen receptor ligand
IT Proteins, specific or class
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study);

USES (Uses)
(**SLIM3**; protein **SLIM3** for screening ligands or agonists and antagonists of nucleus receptor such as androgen receptor or estrogen receptor)

IT Drug screening
Northern blot hybridization
(protein **SLIM3** for screening ligands or agonists and antagonists of nucleus receptor such as androgen receptor or estrogen receptor)

IT Ligands
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(protein **SLIM3** for screening ligands or agonists and antagonists of nucleus receptor such as androgen receptor or estrogen receptor)

IT Androgen receptors
Estrogen receptors
Nuclear receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(protein **SLIM3** for screening ligands or agonists and antagonists of nucleus receptor such as androgen receptor or estrogen receptor)

IT cDNA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(protein **SLIM3** for screening ligands or agonists and antagonists of nucleus receptor such as androgen receptor or estrogen receptor)

L3 ANSWER 3 OF 6 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2001015909 MEDLINE
DOCUMENT NUMBER: 20459249 PubMed ID: 11003643
TITLE: FHL2 (**SLIM3**) is not essential for cardiac development and function.
AUTHOR: Chu P H; Bardwell W M; Gu Y; Ross J Jr; Chen J
CORPORATE SOURCE: Department of Medicine, School of Medicine, University of California at San Diego, La Jolla, California 92093-0613, USA.
SOURCE: MOLECULAR AND CELLULAR BIOLOGY, (2000 Oct) 20 (20) 7460-2. Journal code: NGY; 8109087. ISSN: 0270-7306.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200010
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001030
TI FHL2 (**SLIM3**) is not essential for cardiac development and function.

L3 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:70353 CAPLUS
DOCUMENT NUMBER: 132:80381
TITLE: Online data compression and error analysis using wavelet technology
AUTHOR(S): Misra, Manish; Qin, S. Joe; Kumar, Shailesh; Seemann, Dick
CORPORATE SOURCE: Dept. of Chemical Engineering, The University of Texas
at Austin, Austin, TX, 78712, USA
SOURCE: AIChE J. (2000), 46(1), 119-132
CODEN: AICEAC; ISSN: 0001-1541
PUBLISHER: American Institute of Chemical Engineers
DOCUMENT TYPE: Journal

LANGUAGE: English
REFERENCE COUNT: 16
REFERENCE(S): (1) Bader, F; InTech 1987, V53
(2) Bakshi, B; AIChE J 1996, V42, P477 CAPLUS
(3) Benelli, D; The Radio and Electronic Engr 1980, V50, P29
(13) Mah, R; Comp Chem Eng 1995, V19, P129 CAPLUS
(15) Watson, M; Ind Eng Chem Res 1998, V37, P267 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Wavelet representation of a signal is efficient for process data compression. An online compression algorithm based on Haar wavelets is proposed here. As a new data point arrives, the algorithm computes all the approxn. coeffs. and updates the multiresoln. tree before it preps. to receive the next data point. An efficient bookkeeping and indexing scheme improves compression ratio more significantly than batch-mode wavelet compression. Reconstruction algorithms and historian format for this bookkeeping are developed. Various anal. results on the bounds on compression ratio and sum of the square error that can be achieved using this algorithm are derived. Exptl. evaluation over two sets of plant data shows that wavelet compression is superior to conventional interpolative methods (such as boxcar, backward slope, and **SLIM3**) in terms of quality of compression measured both in time and frequency domain and that the proposed online wavelet compression algorithm performs better than the batch-mode wavelet compression algorithm due to the efficient indexing and bookkeeping scheme. The online algorithm combines the high quality of compression of wavelet-based methods and online implementation of interpolative compression algorithms at the same time.

L3 ANSWER 5 OF 6 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1999:523458 BIOSIS
DOCUMENT NUMBER: PREV199900523458
TITLE: Developing cardiomyocytes selectively express the LIM protein DRAL/**SLIM3**.
AUTHOR(S): Kong, Yanfeng (1); Bassel-Duby, Rhonda S.; Sanders-Williams, R.
CORPORATE SOURCE: (1) Univ. Texas Southwestern Med. Cent., Dallas, TX USA
SOURCE: Circulation, (Oct. 27, 1998) Vol. 98, No. 17 SUPPL., pp. I58.
Meeting Info.: 71st Scientific Sessions of the American Heart Association Dallas, Texas, USA November 8-11, 1998 The American Heart Association
. ISSN: 0009-7322.
DOCUMENT TYPE: Conference
LANGUAGE: English
TI Developing cardiomyocytes selectively express the LIM protein DRAL/**SLIM3**.
IT . . .
& Systems of Organisms
cardiomyocyte: circulatory system, muscular system, selectivity
IT Diseases
dilated cardiomyopathy: heart disease
IT Chemicals & Biochemicals
DRAL/**SLIM3**; MNF-alpha: DNA-binding protein
IT Alternate Indexing
Cardiomyopathy, Congestive (MeSH)

L3 ANSWER 6 OF 6 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 96354835 MEDLINE
DOCUMENT NUMBER: 96354835 PubMed ID: 8753811

TITLE: Slim defines a novel family of LIM-proteins expressed in skeletal muscle.
AUTHOR: Morgan M J; Madgwick A J
CORPORATE SOURCE: Department of Orthodontics, Eastman Dental Institute, London, United Kingdom.
SOURCE: BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1996 Aug 14) 225 (2) 632-8.
Journal code: 9Y8; 0372516. ISSN: 0006-291X.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-U60115; GENBANK-U60116; GENBANK-U60117; GENBANK-U60118
ENTRY MONTH: 199610
ENTRY DATE: Entered STN: 19961022
Last Updated on STN: 19980206
Entered Medline: 19961010

AB . . . novel single zinc finger domain located in the N-terminal region.

Similar sequences to SLIM were identified and termed SLIM2 and **SLIM3**. The **SLIM3** cDNA sequence was identified subsequently as a partial sequence of the of the LIM-protein DRAL. The number and spacing of. . .

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	19.78	19.99

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.76	-1.76

STN INTERNATIONAL LOGOFF AT 14:06:21 ON 04 SEP 2001

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FILE 'HOME' ENTERED AT 14:09:49 ON 04 SEP 2001

=> file medline biosis embase caplus uspatfull

COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'MEDLINE' ENTERED AT 14:10:01 ON 04 SEP 2001

FILE 'BIOSIS' ENTERED AT 14:10:01 ON 04 SEP 2001
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=> s androgen (p) receptor (p) dral

L1            8 ANDROGEN (P) RECEPTOR (P) DRAL

=> s androgen (p) receptor (p) fhl2

L2            9 ANDROGEN (P) RECEPTOR (P) FHL2

=> l1 or l2

L1 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l1 or l2

L3           13 L1 OR L2

=> dup rem l3

PROCESSING COMPLETED FOR L3
L4             4 DUP REM L3 (9 DUPLICATES REMOVED)

=> d l4 total ibib kwic


L4   ANSWER 1 OF 4     MEDLINE                              DUPLICATE 1
ACCESSION NUMBER:   2001103482     MEDLINE
DOCUMENT NUMBER:    20458893   PubMed ID: 11001931
TITLE:              Alzheimer's disease-associated presenilin 2 interacts with
```

DRAL, an LIM-domain protein.
AUTHOR: Tanahashi H; Tabira T
CORPORATE SOURCE: Division of Demyelinating Disease and Aging, National Institute of Neuroscience, 4-1-1 Ogawahigashi, Kodaira, Tokyo 187-8502, Japan.. tanahash@ncnp.go.jp
SOURCE: HUMAN MOLECULAR GENETICS, (2000 Sep 22) 9 (15) 2281-9. Journal code: BRC. ISSN: 0964-6906.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200102
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010208

AB Using the yeast two-hybrid system, we screened for proteins interacting with presenilin 2 (PS2) and cloned **DRAL**. **DRAL** is an LIM-only protein containing four LIM domains and an N-terminal half LIM domain. Previously **DRAL** has been cloned as a co-activator of the **androgen receptor** and as a protein interacting with a DNA replication regulatory protein, hCDC47. Our yeast two-hybrid assay showed that **DRAL** interacted with a hydrophilic loop region (amino acids 269-298) in the endoproteolytic N-terminal fragment of PS2, but not that of. . . this region, R275A, T280A, Q282A, R284A, N285A, P287T, I288L, F289A and S296A, in PS2 abolished the binding. This suggests that **DRAL** recognizes the PS2 structure specifically. The in vitro interaction was confirmed by affinity column assay and the physiological interactions between endogenous PS2 and **DRAL** by co-immunoprecipitation from human lung fibroblast MRC5 cells. Furthermore, in PS2-overexpressing HEK293 cells, we found an increase in the amount of **DRAL** in the membrane fraction and an increase in the amount of **DRAL** that was co-immunoprecipitated with PS2. The potential role of **DRAL** in the cellular signaling suggests that **DRAL** functions as an adaptor protein that links PS2 to an intracellular signaling.

L4 ANSWER 2 OF 4 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 2000120800 MEDLINE
DOCUMENT NUMBER: 20120800 PubMed ID: 10654935
TITLE: **FHL2**, a novel tissue-specific coactivator of the **androgen receptor**.
AUTHOR: Muller J M; Isele U; Metzger E; Rempel A; Moser M; Pscherer A; Breyer T; Holubarsch C; Buettner R; Schule R
CORPORATE SOURCE: Universitats-Frauenklinik, Abteilung Frauenheilkunde und Geburtshilfe I, Klinikum der Universitat Freiburg, Breisacherstrasse 117, 79106 Freiburg, Germany.
SOURCE: EMBO JOURNAL, (2000 Feb 1) 19 (3) 359-69. Journal code: EMB; 8208664. ISSN: 0261-4189.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200003
ENTRY DATE: Entered STN: 20000327
Last Updated on STN: 20000327
Entered Medline: 20000310

TI **FHL2**, a novel tissue-specific coactivator of the **androgen receptor**.

AB The control of target gene expression by nuclear **receptors** requires the recruitment of multiple cofactors. However, the exact mechanisms by which nuclear **receptor**-cofactor interactions result in tissue-specific gene regulation are unclear. Here we characterize a novel tissue-specific coactivator for the **androgen**

receptor (AR), which is identical to a previously reported protein **FHL2/DRAL** with unknown function. In the adult, **FHL2** is expressed in the myocardium of the heart and in the epithelial cells of the prostate, where it colocalizes with the AR in the nucleus. **FHL2** contains a strong, autonomous transactivation function and binds specifically to the AR in vitro and in vivo. In an agonist- and AF-2-dependent manner **FHL2** selectively increases the transcriptional activity of the AR, but not that of any other nuclear **receptor**. In addition, the transcription of the prostate-specific AR target gene probasin is coactivated by **FHL2**. Taken together, our data demonstrate that **FHL2** is the first LIM-only coactivator of the AR with a unique tissue-specific expression pattern.

L4 ANSWER 3 OF 4 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2000437875 EMBASE
TITLE: [Tissue specificity of molecular androgen action, crucial role of transcriptional cofactors].
SPECIFICITE TISSULAIRE DE L'ACTION MOLECULAIRE DES ANDROGENES: ROLE DES COFACTEURS TRANSCRIPTIONNELS.
AUTHOR: Gobinet J.; Jalaguier S.; Sultan C.
CORPORATE SOURCE: J. Gobinet, Inst. Natl./la Sante/Recherche Med., INSERM U439, Pathol. Molec. des Recept. Nudeaires, 70 rue de Navacelles, F-34090 Montpellier, France
SOURCE: References en Gynecologie Obstetrique, (2000) 7/4-5 (262-266).
Refs: 47
ISSN: 1244-8168 CODEN: RGOBE2
COUNTRY: France
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
LANGUAGE: French
SUMMARY LANGUAGE: English; French
AB **Androgens** participate in the development and maintenance of adult testis and prostate, and their action is mediated by the **androgen receptor** (AR). The specificity of AR action depends on the capacity of enzymatic cells to transform hormonal precursors into testosterone, particularly. . . These cofactors are able to modulate the transcriptional activity of AR either by augmentation or inhibition. Two recently isolated cofactors, **FHL2** and PIAS1, seem to be good candidates for the control of AR action because of the specificity of their action and expression. **FHL2**, a 32 kDa protein, is an AR-specific coactivator whose expression pattern is restricted to prostate and myocardium. PIAS1, a 76 kDa protein, is an AR coactivator whose expression pattern is restricted to testis, particularly in Sertoli and Leydig cells. **FHL2** is a potential regulator of gene expression in prostate and PIAS1 could be a testicular modulator of transcription.

L4 ANSWER 4 OF 4 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 2001022482 MEDLINE
DOCUMENT NUMBER: 20481833 PubMed ID: 11027411
TITLE: Expression of androgen receptor coregulatory proteins in prostate cancer and stromal-cell culture models.
AUTHOR: Nessler-Menardi C; Jotova I; Culig Z; Eder I E; Putz T; Bartsch G; Klocker H
CORPORATE SOURCE: Department of Urology, University of Innsbruck, Innsbruck, Austria.
SOURCE: PROSTATE, (2000 Oct 1) 45 (2) 124-31.
Journal code: PB4. ISSN: 0270-4137.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200011

ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001109

AB BACKGROUND: **Androgen receptor** (AR) transcriptional activity is modulated by cofactor proteins. They act as costimulators, corepressors, or bridging proteins, and a disbalanced expression. . . to the altered activity of the AR in advanced prostate cancer. We investigated the expression of a series of steroid **receptor** cofactors in prostate cancer cell lines, including several LNCaP sublines, and in prostate stromal cells. METHODS: Expression of cofactors was analyzed by means of RT-PCR in PC-3, Du-145, LNCaP, three sublines of LNCaP established after long-term **androgen** deprivation, and two strains of primary prostate stroma cells. Expression in LNCaP and LNCaP-abl cells (which represented an advanced tumor. . . expressed in all cells analyzed (AIB1, ARA54, ARA70, CBP, cyclin D1, Her2/neu/erbB2, BAG-1/M/L, SRC-1, SMRT, and TIF2). Only ARA55 and **FHL2** mRNAs were not detected in all cells. ARA55 mRNA was absent in LNCaP cells, LNCaP sublines, and DU-145 cells; **FHL2** was not expressed in LNCaP cells and its derivatives. The expression pattern was identical in LNCaP cells, and the long-term **androgen** ablated LNCaP sublines. Moreover, comparison of expression levels in LNCaP and LNCaP-abl cells revealed a slight reduction in LNCaP-abl cells but no gross differences. CONCLUSIONS: Prostatic cells express a great number of steroid **receptor** cofactors. AR activity thus seems to be modulated in a very complex way in prostate cells.

=> d his

(FILE 'HOME' ENTERED AT 14:09:49 ON 04 SEP 2001)

FILE 'MEDLINE, BIOSIS, EMBASE, CAPLUS, USPATFULL' ENTERED AT 14:10:01 ON 04 SEP 2001
L1 8 S ANDROGEN (P) RECEPTOR (P) DRAL
L2 9 S ANDROGEN (P) RECEPTOR (P) FHL2
L3 13 S L1 OR L2
L4 4 DUP REM L3 (9 DUPLICATES REMOVED)

=> dup rem l1

PROCESSING COMPLETED FOR L1
L5 2 DUP REM L1 (6 DUPLICATES REMOVED)

=> dup rem l2

PROCESSING COMPLETED FOR L2
L6 3 DUP REM L2 (6 DUPLICATES REMOVED)

=> d l5 total ibib kwic

L5 ANSWER 1 OF 2 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2001103482 MEDLINE
DOCUMENT NUMBER: 20458893 PubMed ID: 11001931
TITLE: Alzheimer's disease-associated presenilin 2 interacts with DRAL, an LIM-domain protein.
AUTHOR: Tanahashi H; Tabira T
CORPORATE SOURCE: Division of Demyelinating Disease and Aging, National Institute of Neuroscience, 4-1-1 Ogawahigashi, Kodaira, Tokyo 187-8502, Japan.. tanahash@ncnp.go.jp
SOURCE: HUMAN MOLECULAR GENETICS, (2000 Sep 22) 9 (15) 2281-9. Journal code: BRC. ISSN: 0964-6906.
PUB. COUNTRY: ENGLAND: United Kingdom

Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200102
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010208

AB Using the yeast two-hybrid system, we screened for proteins interacting with presenilin 2 (PS2) and cloned **DRAL**. **DRAL** is an LIM-only protein containing four LIM domains and an N-terminal half LIM domain. Previously **DRAL** has been cloned as a co-activator of the **androgen receptor** and as a protein interacting with a DNA replication regulatory protein, hCDC47. Our yeast two-hybrid assay showed that **DRAL** interacted with a hydrophilic loop region (amino acids 269-298) in the endoproteolytic N-terminal fragment of PS2, but not that of. . . this region, R275A, T280A, Q282A, R284A, N285A, P287T, I288L, F289A and S296A, in PS2 abolished the binding. This suggests that **DRAL** recognizes the PS2 structure specifically. The in vitro interaction was confirmed by affinity column assay and the physiological interactions between endogenous PS2 and **DRAL** by co-immunoprecipitation from human lung fibroblast MRC5 cells. Furthermore, in PS2-overexpressing HEK293 cells, we found an increase in the amount of **DRAL** in the membrane fraction and an increase in the amount of **DRAL** that was co-immunoprecipitated with PS2. The potential role of **DRAL** in the cellular signaling suggests that **DRAL** functions as an adaptor protein that links PS2 to an intracellular signaling.

L5 ANSWER 2 OF 2 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 2000120800 MEDLINE
DOCUMENT NUMBER: 20120800 PubMed ID: 10654935
TITLE: FHL2, a novel tissue-specific coactivator of the androgen receptor.
AUTHOR: Muller J M; Isele U; Metzger E; Rempel A; Moser M; Pscherer A; Breyer T; Holubarsch C; Buettner R; Schule R
CORPORATE SOURCE: Universitats-Frauenklinik, Abteilung Frauenheilkunde und Geburtshilfe I, Klinikum der Universitat Freiburg, Breisacherstrasse 117, 79106 Freiburg, Germany.
SOURCE: EMBO JOURNAL, (2000 Feb 1) 19 (3) 359-69.
Journal code: EMB; 8208664. ISSN: 0261-4189.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200003
ENTRY DATE: Entered STN: 20000327
Last Updated on STN: 20000327
Entered Medline: 20000310

AB The control of target gene expression by nuclear **receptors** requires the recruitment of multiple cofactors. However, the exact mechanisms by which nuclear **receptor**-cofactor interactions result in tissue-specific gene regulation are unclear. Here we characterize a novel tissue-specific coactivator for the **androgen receptor** (AR), which is identical to a previously reported protein FHL2/**DRAL** with unknown function. In the adult, FHL2 is expressed in the myocardium of the heart and in the epithelial cells. . . agonist- and AF-2-dependent manner FHL2 selectively increases the transcriptional activity of the AR, but not that of any other nuclear **receptor**. In addition, the transcription of the prostate-specific AR target gene probasin is coactivated by FHL2. Taken together, our data demonstrate. . .

=> d his

(FILE 'HOME' ENTERED AT 14:09:49 ON 04 SEP 2001)

FILE 'MEDLINE, BIOSIS, EMBASE, CAPLUS, USPATFULL' ENTERED AT 14:10:01 ON 04 SEP 2001

L1 8 S ANDROGEN (P) RECEPTOR (P) DRAL
L2 9 S ANDROGEN (P) RECEPTOR (P) FHL2
L3 13 S L1 OR L2
L4 4 DUP REM L3 (9 DUPLICATES REMOVED)
L5 2 DUP REM L1 (6 DUPLICATES REMOVED)
L6 3 DUP REM L2 (6 DUPLICATES REMOVED)

=> d l6 total ibib kwic

L6 ANSWER 1 OF 3 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2000120800 MEDLINE
DOCUMENT NUMBER: 20120800 PubMed ID: 10654935
TITLE: **FHL2**, a novel tissue-specific coactivator of the **androgen receptor**.
AUTHOR: Muller J M; Isele U; Metzger E; Rempel A; Moser M; Pscherer A; Breyer T; Holubarsch C; Buettner R; Schule R
CORPORATE SOURCE: Universitats-Frauenklinik, Abteilung Frauenheilkunde und Geburtshilfe I, Klinikum der Universitat Freiburg, Breisacherstrasse 117, 79106 Freiburg, Germany.
SOURCE: EMBO JOURNAL, (2000 Feb 1) 19 (3) 359-69.
Journal code: EMB; 8208664. ISSN: 0261-4189.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200003
ENTRY DATE: Entered STN: 20000327
Last Updated on STN: 20000327
Entered Medline: 20000310
TI **FHL2**, a novel tissue-specific coactivator of the **androgen receptor**.
AB The control of target gene expression by nuclear **receptors** requires the recruitment of multiple cofactors. However, the exact mechanisms by which nuclear **receptor**-cofactor interactions result in tissue-specific gene regulation are unclear. Here we characterize a novel tissue-specific coactivator for the **androgen receptor** (AR), which is identical to a previously reported protein **FHL2**/DRAL with unknown function. In the adult, **FHL2** is expressed in the myocardium of the heart and in the epithelial cells of the prostate, where it colocalizes with the AR in the nucleus. **FHL2** contains a strong, autonomous transactivation function and binds specifically to the AR in vitro and in vivo. In an agonist- and AF-2-dependent manner **FHL2** selectively increases the transcriptional activity of the AR, but not that of any other nuclear **receptor**. In addition, the transcription of the prostate-specific AR target gene probasin is coactivated by **FHL2**. Taken together, our data demonstrate that **FHL2** is the first LIM-only coactivator of the AR with a unique tissue-specific expression pattern.

L6 ANSWER 2 OF 3 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2000437875 EMBASE
TITLE: [Tissue specificity of molecular androgen action, crucial role of transcriptional cofactors].
SPECIFICITE TISSULAIRE DE L'ACTION MOLECULAIRE DES ANDROGENES: ROLE DES COFACTEURS TRANSCRIPTIONNELS.
AUTHOR: Gobinet J.; Jalaguier S.; Sultan C.
CORPORATE SOURCE: J. Gobinet, Inst. Natl./la Sante/Recherche Med., INSERM

U439, Pathol. Molec. des Recept. Nudeaires, 70 rue de Navacelles, F-34090 Montpellier, France

SOURCE: References en Gynecologie Obstetrique, (2000) 7/4-5 (262-266).
Refs: 47
ISSN: 1244-8168 CODEN: RGOBE2

COUNTRY: France
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
LANGUAGE: French
SUMMARY LANGUAGE: English; French

AB **Androgens** participate in the development and maintenance of adult testis and prostate, and their action is mediated by the **androgen receptor** (AR). The specificity of AR action depends on the capacity of enzymatic cells to transform hormonal precursors into testosterone, particularly. . . These cofactors are able to modulate the transcriptional activity of AR either by augmentation or inhibition. Two recently isolated cofactors, **FHL2** and PIAS1, seem to be good candidates for the control of AR action because of the specificity of their action and expression. **FHL2**, a 32 kDa protein, is an AR-specific coactivator whose expression pattern is restricted to prostate and myocardium. PIAS1, a 76 kDa protein, is an AR coactivator whose expression pattern is restricted to testis, particularly in Sertoli and Leydig cells. **FHL2** is a potential regulator of gene expression in prostate and PIAS1 could be a testicular modulator of transcription.

L6 ANSWER 3 OF 3 MEDLINE DUPLICATE 2

ACCESSION NUMBER: 2001022482 MEDLINE
DOCUMENT NUMBER: 20481833 PubMed ID: 11027411
TITLE: Expression of androgen receptor coregulatory proteins in prostate cancer and stromal-cell culture models.
AUTHOR: Nessler-Menardi C; Jotova I; Culig Z; Eder I E; Putz T; Bartsch G; Klocker H
CORPORATE SOURCE: Department of Urology, University of Innsbruck, Innsbruck, Austria.
SOURCE: PROSTATE, (2000 Oct 1) 45 (2) 124-31.
Journal code: PB4. ISSN: 0270-4137.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200011
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001109

AB BACKGROUND: **Androgen receptor** (AR) transcriptional activity is modulated by cofactor proteins. They act as costimulators, corepressors, or bridging proteins, and a disbalanced expression. . . to the altered activity of the AR in advanced prostate cancer. We investigated the expression of a series of steroid **receptor** cofactors in prostate cancer cell lines, including several LNCaP sublines, and in prostate stromal cells. METHODS: Expression of cofactors was analyzed by means of RT-PCR in PC-3, Du-145, LNCaP, three sublines of LNCaP established after long-term **androgen** deprivation, and two strains of primary prostate stroma cells. Expression in LNCaP and LNCaP-abl cells (which represented an advanced tumor. . . expressed in all cells analyzed (AIB1, ARA54, ARA70, CBP, cyclin D1, Her2/neu/erbB2, BAG-1/M/L, SRC-1, SMRT, and TIF2). Only ARA55 and **FHL2** mRNAs were not detected in all cells. ARA55 mRNA was absent in LNCaP cells, LNCaP sublines, and DU-145 cells; **FHL2** was not expressed in LNCaP cells and its derivatives. The expression pattern was identical in LNCaP cells, and the long-term **androgen** ablated LNCaP sublines.

Moreover, comparison of expression levels in LNCaP and LNCaP-abl cells revealed a slight reduction in LNCaP-abl cells but no gross differences. CONCLUSIONS: Prostatic cells express a great number of steroid **receptor** cofactors. AR activity thus seems to be modulated in a very complex way in prostate cells.

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	19.63	19.84

* *

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* *

STN INTERNATIONAL LOGOFF AT 14:13:57 ON 04 SEP 2001

DERWENT-ACC-NO: 2001-042441
DERWENT-WEEK: 200143

TITLE: In vitro use of SLIM3 protein for binding to nuclear receptors, useful
for identifying modulators of the androgen and estrogen-beta receptors

INVENTOR: MUELLER, J; SCHUELE, R

PATENT-ASSIGNEE: SCHERING AG[SCHD]

PRIORITY-DATA: 1999EP-0250161 (May 21, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 59900132 G	July 26, 2001	N/A	000	G01N 033/68
EP 1058117 A1	December 6, 2000	G	009	G01N 033/68
JP 2000327587 A	November 28, 2000	N/A	007	A61K 045/00
EP 1058117 B1	June 20, 2001	G	000	G01N 033/68

DESIGNATED-STATES: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK N
L PT RO SE SI AL AT BE CH DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO
SE SI

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
DE 59900132G	N/A	1999DE-0500132	May 21, 1999
DE 59900132G	N/A	1999EP-0250161	May 21, 1999
DE 59900132G	Based on	EP 1058117	N/A
EP 1058117A1	N/A	1999EP-0250161	May 21, 1999
JP2000327587A	N/A	1999JP-0261593	September 16, 1999

EP 1058117B1 N/A 1999EP-0250161
May 21, 1999

INT-CL_(IPC): A61K038/00; A61K045/00 ; A61P005/26 ;
A61P005/28 ;
A61P005/30 ; A61P005/32 ; A61P043/00 ; C07K014/47 ;
G01N033/53 ;
G01N033/68

ABSTRACTED-PUB-NO: EP 1058117A
BASIC-ABSTRACT: NOVELTY - Extracorporeal use of the SLIM3 protein for binding
to at least one of the nuclear proteins androgen receptor (AR) and estrogen
beta receptor (ERb). All proteins may be in modified forms with deletion,
substitution or insertion of up to 10 amino acids, provided that the function
of the parent protein is retained.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) use of amino acid sequences of SLIM3, encoded by a cDNA, for binding amino
acids sequences of AR and ERb, also encoded by cDNAs, where optionally one or
more of the cDNAs are modified but have at least 85% homology to sequences that
encode the native proteins and encode a protein with the same function as the
native protein; and

(2) extracorporeal method for identifying ligands that modulate interaction
between SLIM3 and AR or ERb.

USE - Binding of SLIM3 to AR and ERb is used to identify ligands (agonists or
antagonists) that modulate SLIM3-nuclear receptor interactions. These ligands
are useful as therapeutic agents or as lead compounds for pharmaceutical
development.

ADVANTAGE - Compared with known co-activators, SLIM3 is highly specific, i.e.
it interacts with only AR and ERb.

ABSTRACTED-PUB-NO: EP 1058117B

EQUIVALENT-ABSTRACTS: NOVELTY - Extracorporeal use of the SLIM3 protein for binding to at least one of the nuclear proteins androgen receptor (AR) and estrogen beta receptor (ERb). All proteins may be in modified forms with deletion, substitution or insertion of up to 10 amino acids, provided that the function of the parent protein is retained.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) use of amino acid sequences of SLIM3, encoded by a cDNA, for binding amino acids sequences of AR and ERb, also encoded by cDNAs, where optionally one or more of the cDNAs are modified but have at least 85% homology to sequences that encode the native proteins and encode a protein with the same function as the native protein; and

(2) extracorporeal method for identifying ligands that modulate interaction between SLIM3 and AR or ERb.

USE - Binding of SLIM3 to AR and ERb is used to identify ligands (agonists or antagonists) that modulate SLIM3-nuclear receptor interactions. These ligands are useful as therapeutic agents or as lead compounds for pharmaceutical development.

ADVANTAGE - Compared with known co-activators, SLIM3 is highly specific, i.e. it interacts with only AR and ERb.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:
VITRO PROTEIN BIND NUCLEAR RECEPTOR USEFUL IDENTIFY MODULATE ANDROGENIC OESTROGEN BETA RECEPTOR

DERWENT-CLASS: B04 D16 S03

CPI-CODES: B04-C01G; B04-H01; B04-K01; B04-N04A; B11-C07B5; B11-C08E; B12-K04E;

D05-H09;

EPI-CODES: S03-E14H; S03-E14H4;

CHEMICAL-CODES:
Chemical Indexing M1 *01*
    Fragmentation Code
    M423 M430 M782 M905 N102 P831 Q233 Q505
    Specfic Compounds
    A00H3K A00H3D A00H3M

Chemical Indexing M1 *02*
    Fragmentation Code
    M423 M430 M782 M905 N102 P831 Q233 Q505
    Specfic Compounds
    A00H1K A00H1D A00H1M

Chemical Indexing M6 *03*
    Fragmentation Code
    M905 P611 P612 P621 P622 P831 Q233 Q505 R513 R515
    R521 R614 R626 R627 R633

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C2001-012379
Non-CPI Secondary Accession Numbers: N2001-031824